

SYLLABUS

NAME OF COURSE: RENAL PULMONARY PHYSIOPATHOLOGY (PHPA-225)

LENGTH OF COURSE: 4 units, 44 hours (4 hrs lecture/week)

COURSE DESCRIPTION:

This course explores the functions of urinary and respiratory systems and their relationship with a variety of body systems and with each other. Physiologic concepts studied will focus on individual systems as well as the function of both systems as they relate to each other. Pathologies such as emphysema, asthma, cancers, uremia, diabetes, and acidosis, are explored.

PREREQUISITES: ANAT-219, PHYS-122, PATH-120

COURSE OFFERED BY: Basic Science Department

REQUIRED TEXT: Renal Pulmonary Phys/Path Notes by Dr. Stephen James. & Dr. Muwafaqu Alasad

REFERENCE TEXTS: Textbook of Medical Physiology by Guyton and Hall 12th ed. 2011
Pulmonary Pathophysiology by JB West 7th ed. 2008
Pathology Illustrated by Reid R, 6th ed. 2005
Pathophysiology of Disease by McPhee et al 5th ed. 2006
Anatomy Coloring Book 3rd ed. 2002,
Physiology Coloring Book 2nd ed. 2000

MATERIALS: Handouts

METHOD OF INSTRUCTION: Lecture/discussion, ELMO, overhead projectors, videos

GRADES:

There will be a 50 pt quiz, 100 pt mid-term exam, and 100 pt final exam. Questions will include primarily multiple choice, fill-in, short answer essay. Grades will be assigned according to the following scale: [out of 250 pts]

A = 4.0	90-100%	C = 2.0	70-79%
B = 3.0	80-89%	F = 0.0	0-69%

Any student receiving less than 70% in any mid-term is encouraged to sign up for tutoring through the Office of Academic Affairs

Grades and the Grading System Final Grades are available online through the CAMS student portal. If there are any questions on grading procedures, computation of grade point average, or the accuracy of the grade report, please contact the Registrar's Office or the Office of Academic Affairs. Grades will be

reported and evaluation will be based on the Academic Policies, Procedures, & Services. Please refer to Evaluation Policy (**Policy ID: OAA.0007**)

In order to maintain **Satisfactory Academic Progress**, a student must maintain a 2.0 or better in each and every course. **Any grade less than a C must be remedied by repeating the class.** Please refer to Satisfactory Academic Progress (**Policy ID: OAA.0006**)

Attendance: Please refer to Attendance Policy (**Policy ID: OAA.0002**)

Conduct and

Responsibilities: Please refer to the Personal Conduct, Responsibility and Academic Responsibility Policy (**Policy ID: OAA.0003**)

Make-up Exams: Please refer to Make-up Assessment Policy (**Policy ID: OAA.0001**)

Request for Special Testing: Please refer to Request for Special Testing (**Policy ID: OAA.0004**)

Accommodation for Students with Disabilities:

If you have approved accommodations, please make an appointment to meet with your instructor as soon as possible. If you believe you require an accommodation, but do not have an approved accommodation letter, please see the Academic Counselor Lori Pino in the Office of Academic Affairs. Contact info: Lpino@lifewest.edu or 510-780-4500 ext. 2061. Please refer to Service for Students with Disabilities Policy (**Policy ID: OAA.0005**)

Electronic Course Management:

Canvas is LCCW's Learning Management System (LMS). Canvas will be used throughout the quarter during this course. Lectures, reminders, and messages will be posted. In addition, documents such as the course syllabus and helpful information about the class project will be posted. Students are expected to check Canvas at least once a week in order to keep updated. The website address for Canvas is <https://lifewest.instructure.com/login/canvas> Please refer to the Educational Technologies Policy (**Policy ID: OAA.0009**)

EXTRA CREDIT: None

COURSE OBJECTIVES:

The student will be able to gain knowledge of the basic physiology and common pathologies of both the lungs and kidneys and their interrelationship with the functions of the entire body. Diagnostic testing methods will be presented and their application to the clinical setting will be discussed

SCHEDULE OF LECTURE AND EXAMS:

Week 1	To discuss introduction to respiratory physiology with emphasis on chiropractic landmarks, conducting and respiratory zones, gas laws and mechanics of breathing.
Week 2	To discuss inspiration and expiration pressures, alveolar surface tension, surfactant, and pulmonary functions
Week 3	<i>Quiz.</i> To discuss hypoxia, non primary respiratory air movements, and gas exchange between blood, lungs, and tissues.
Week 4	To discuss carbon dioxide transport, association/dissociation of oxygen and hemoglobin as well as introduction to pulmonary pathology.
Week 5	To discuss cancer, lung infections, common developmental anomalies, pulmonary edema, and microvascular injury.
Week 6	To discuss obstructive versus restrictive diseases, asthma, emphysema, chronic bronchitis, and respiratory diseases. <i>Midterm.</i>
Week 7	To discuss introduction to renal physiology, anatomy of the kidney, chiropractic landmarks, kidney location, and renal blood flow.
Week 8	To discuss the nephrons, glomerulus, renal tubules, and collecting ducts.
Week 9	To discuss glomerular filtration rate, net filtrate pressure, diuretics, filtration, reabsorption, and secretion.
Week 10	To discuss introduction to renal pathologies to include developmental anomalies, cancers, and infections.
Week 11	To discuss, acute and chronic renal failure, diabetes, glomerulonephritis, <i>Final Exam</i>

Learning Outcomes: Renal/Pulmonary Physiopathology PHPA-225

Student Learning Outcomes (SLO): At the completion of the PHPA-225 course, a student should be able to:

STUDENT LEARNING OBJECTIVES:

- The student should be able to comprehend the physiologic workings of the respiratory as it relates to other systems in the body as well as chiropractic philosophy. [PLO:1,10]
- The student should be able to recognize respiratory pathologies and how they present in the body as well as how they relate to the spine, nervous system, and chiropractic care. [PLO:1,2,3]
- The student will begin to assess, diagnose, and create a care plan for respiratory conditions as they relate to chiropractic care. [PLO:1,2,3,5,10]
- The student should be able to comprehend the workings of renal physiology as it relates to other systems in the body as well as chiropractic philosophy. [PLO:1,10]
- The student should be able to understand renal pathologies and their presentation in the affected individual as well as how they relate to the spine, nervous system, and chiropractic care. [PLO:1,2,3]
- The student will begin to assess, diagnose, and create a care plan for respiratory conditions as they relate to chiropractic care. [PLO:1,2,3,5,10]

Program Learning Outcomes (PLO): Students graduating with a Doctor of Chiropractic degree will be proficient in the following:

1. **ASSESSMENT AND DIAGNOSIS:** An assessment and diagnosis requires developed clinical reasoning

skills. Clinical reasoning consists of data gathering and interpretation, hypothesis generation and testing, and critical evaluation of diagnostic strategies. It is a dynamic process that occurs before, during, and after the collection of data through history, physical examination, imaging, laboratory tests and case-related clinical services.

2. **MANAGEMENT PLAN:** Management involves the development, implementation and documentation of a patient care plan for positively impacting a patient's health and well-being, including specific therapeutic goals and prognoses. It may include case follow-up, referral, and/or collaborative care.
3. **HEALTH PROMOTION AND DISEASE PREVENTION:** Health promotion and disease prevention requires an understanding and application of epidemiological principles regarding the nature and identification of health issues in diverse populations and recognizes the impact of biological, chemical, behavioral, structural, psychosocial and environmental factors on general health.
4. **COMMUNICATION AND RECORD KEEPING:** Effective communication includes oral, written and nonverbal skills with appropriate sensitivity, clarity and control for a wide range of healthcare related activities, to include patient care, professional communication, health education, and record keeping and reporting.
5. **PROFESSIONAL ETHICS AND JURISPRUDENCE:** Professionals comply with the law and exhibit ethical behavior.
6. **INFORMATION AND TECHNOLOGY LITERACY:** Information literacy is a set of abilities, including the use of technology, to locate, evaluate and integrate research and other types of evidence to manage patient care.
7. **CHIROPRACTIC ADJUSTMENT/MANIPULATION:** Doctors of chiropractic employ the adjustment/manipulation to address joint and neurophysiologic dysfunction. The adjustment/manipulation is a precise procedure requiring the discrimination and identification of dysfunction, interpretation and application of clinical knowledge; and, the use of cognitive and psychomotor skills.
8. **INTERPROFESSIONAL EDUCATION:** Students have the knowledge, skills and values necessary to function as part of an inter-professional team to provide patient-centered collaborative care. Inter-professional teamwork may be demonstrated in didactic, clinical or simulated learning environments.
9. **BUSINESS:** Assessing personal skills and attributes, developing leadership skills, leveraging talents and strengths that provide an achievable expectation for graduate success. Adopting a systems-based approach to business operations. Networking with practitioners in associated fields with chiropractic, alternative medicine and allopathic medicine. Experiencing and acquiring the hard business skills required to open and operate an on-going business concern. Participating in practical, real time events that promote business building and quantifiable marketing research outcomes
10. **PHILOSOPHY:** Demonstrates an ability to incorporate a philosophically based Chiropractic paradigm in approach to patient care. Demonstrates an understanding of both traditional and contemporary Chiropractic philosophic concepts and principles. Demonstrates an understanding of the concepts of philosophy, science, and art in chiropractic principles and their importance to chiropractic practice.